

Amendments to the Claims:

The following listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A method of manufacturing a semiconductor device, comprising:

forming a peeling layer on a first substrate;

forming an insulating film on the peeling layer;

forming a plurality of fine holes in the insulating film;

forming a semiconductor film on the insulating film and in the fine holes;

melting and crystallizing the semiconductor film by a heat treatment to form a crystalline semiconductor film including substantially single-crystalline grains substantially centered on the respective fine holes;

forming a semiconductor element by using the crystalline semiconductor film;

and

causing peeling at ~~the~~an inside and/or ~~the~~a boundary surface of the peeling layer to separate the semiconductor element from the first substrate and transferring the semiconductor element to a second substrate.

2. (Previously Presented) The method of manufacturing a semiconductor device according to Claim 1, the causing peeling comprises:

bonding the semiconductor element on the first substrate to the second substrate;

applying energy to the peeling layer to cause the peeling at the inside and/or the boundary surface of the peeling layer; and

separating the first substrate from the second substrate.

3. (Previously Presented) The method of manufacturing a semiconductor device according to Claim 1, the causing peeling comprises:

bonding the semiconductor element on the first substrate to a temporary transfer substrate;

causing the peeling at the inside and/or the boundary surface of the peeling layer;

separating the first substrate from the temporary transfer substrate;

bonding the semiconductor element on the temporary transfer substrate to the second substrate; and

separating the temporary transfer substrate from the second substrate.

4. (Previously Presented) The method of manufacturing a semiconductor device according to Claim 2, the application of energy to the peeling layer carried out by laser irradiation.

5. (Previously Presented) The method of manufacturing a semiconductor device according to Claim 1, the first substrate having at least one of size, shape and thermal resistance suitable for a semiconductor process capable of processing at least a semiconductor wafer.

6. (Previously Presented) The method of manufacturing a semiconductor device according to Claim 5, the semiconductor process being an LSI manufacturing process.

7. (Previously Presented) The method of manufacturing a semiconductor device according to Claim 5, the first substrate having a wafer size.

8. (Currently Amended) The method of manufacturing a semiconductor device according to Claim 1, ~~the~~ a surface roughness of the first substrate ranging from 10 μm to 30 μm .

9. (Previously Presented) The method of manufacturing a semiconductor device according to Claim 1, in forming the semiconductor element, a plurality of the semiconductor elements formed using one crystalline semiconductor film.

10. (Previously Presented) The method of manufacturing a semiconductor device according to Claim 9, the plurality of semiconductor elements constitute a unit circuit.

11. (Previously Presented) The method of manufacturing a semiconductor device according to Claim 1, in the causing peeling, only semiconductor elements that are transfer targets among a plurality of semiconductor elements formed on the first substrate being selectively transferred from the first substrate to the second substrate.

12. (Previously Presented) The method of manufacturing a semiconductor device according to Claim 11, in the causing peeling, the semiconductor elements that are the transfer targets are selected correspondingly to a plurality of crystalline semiconductor films, respectively.

13. (Previously Presented) The method of manufacturing a semiconductor device according to Claim 12, the method further comprising:

dividing the semiconductor elements and the peeling layer formed on the first substrate every crystalline semiconductor film.

14. (Previously Presented) An electro-optical device, comprising:
the semiconductor device manufactured by using the method of manufacturing a semiconductor device according to Claim 1.

15. (Previously Presented) An integrated circuit, comprising:
the semiconductor device manufactured by using the method of manufacturing a semiconductor device according to Claim 1.

16. (Previously Presented) A circuit board, comprising:
the semiconductor device manufactured by using the method of manufacturing
a semiconductor device according to Claim 1.
17. (Previously Presented) An electronic apparatus, comprising:
the semiconductor device manufactured by using the method of manufacturing
a semiconductor device according to Claim 1.